Joint Strike Fighter
"Interoperable by Design"

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System Engineering Conference
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John Gruetzmacher, Lockheed Martin

JSF Program Focus

Affordability

Low Flyaway Cost
Significantly Reduced Life Cycle Costs

Lethality

Adverse Weather Accurate Weapons Delivery
Weapons Flexibility

Survivability

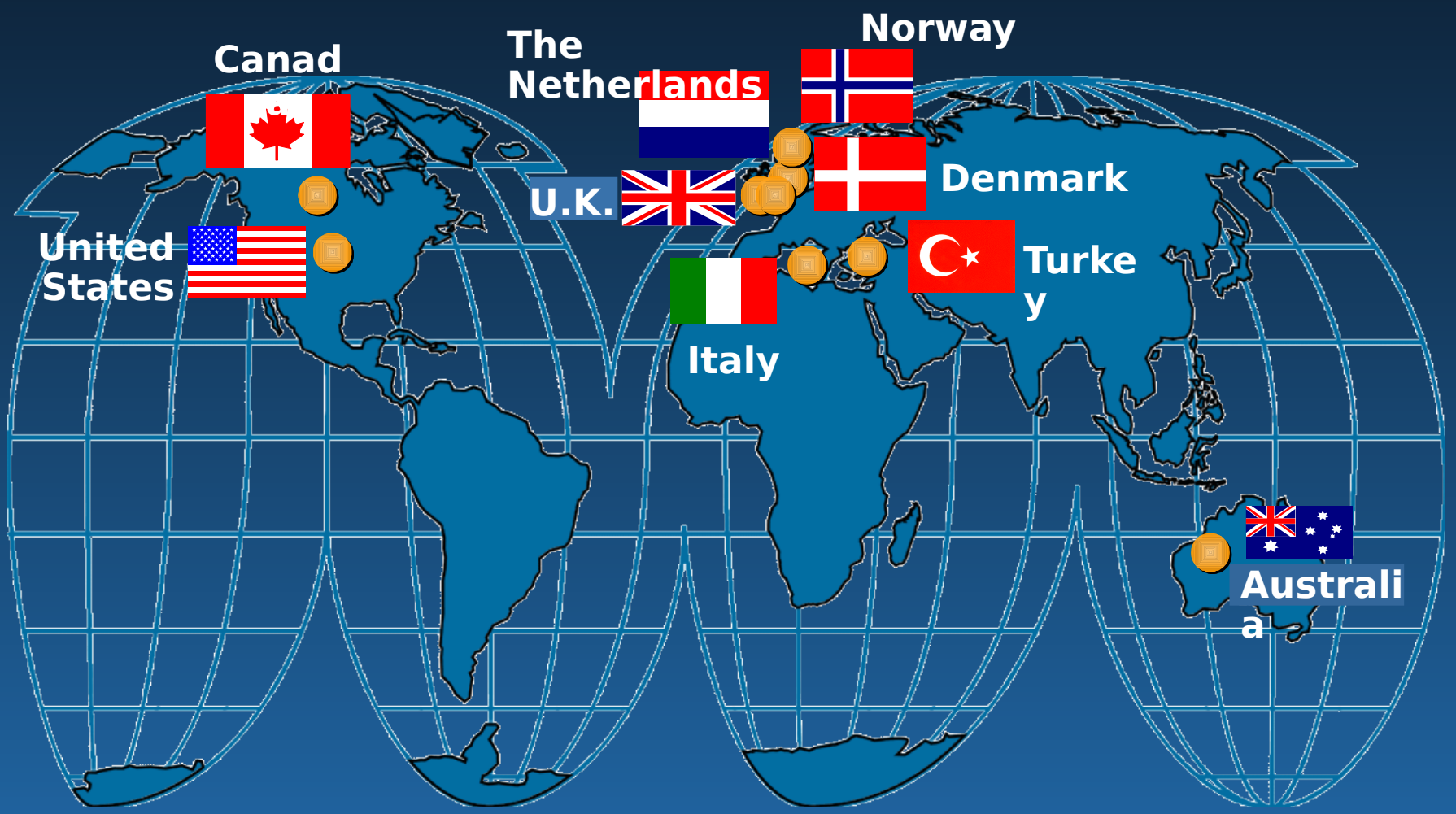
Signature
Performance, SA, Countermeasures

Supportability

Service Basing Requirements
LO Maintainability

Lockheed Martin Aeronautics Comp

JSF International Participation



Lockheed Martin currently contracted to meet US and UK requ
and understand other partner country requirements

Common Aircraft Configurations

F-35A

CTOL
(USAF)

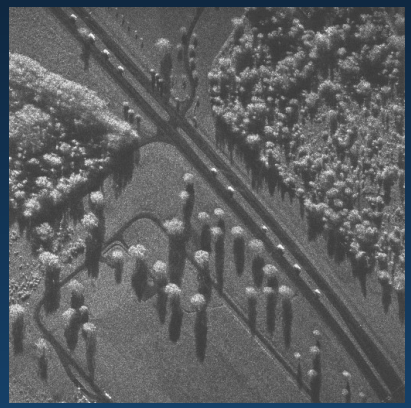
F-35B

STOVL
(USMC and UK)

F-35C

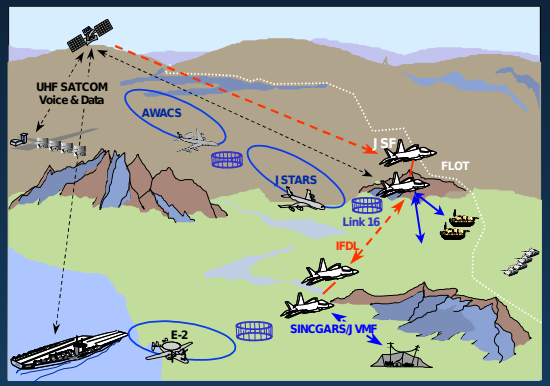
CV
(USN)

JSF Warfighter Capabilities



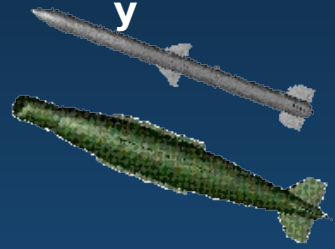
- Multi-Function AESA
  - *UHR SAR*
  - *Autonomous Location and ID*
  - *Precision Attack*

- Fused, Coherent Common Operational Picture
- Intelligent Tactical Decision Aids
- Presented to the Pilot in an Advanced Cockpit

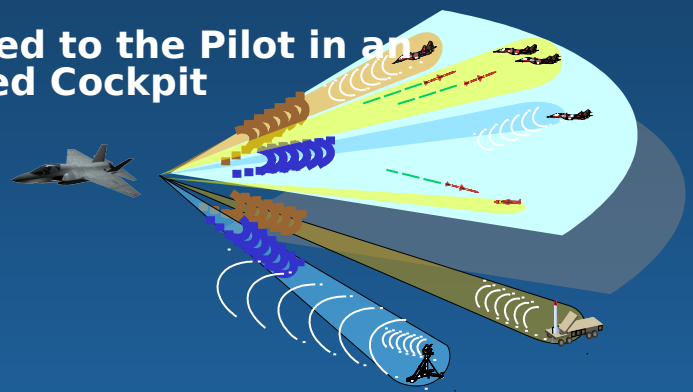


- Cooperative Ops
- Full Off-Board Interoperability

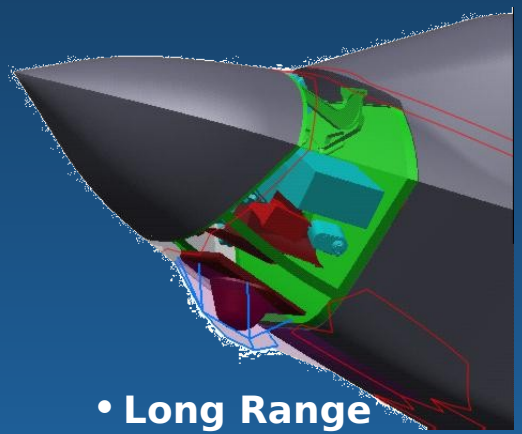
- Versatile Weapons Capability



- All Around Situation Awareness



- Passive Precision Emitter Location and Targeting

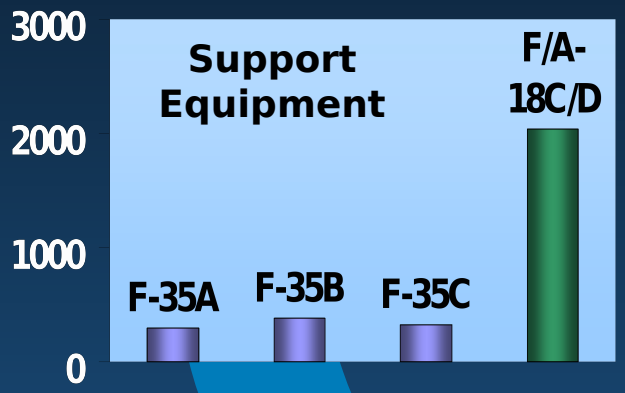


- Long Range IRST

Unprecedented Lethality and Survivability

The Autonomic Logistics Concept

Reduced Footprint



Smart, Reliable Aircraft

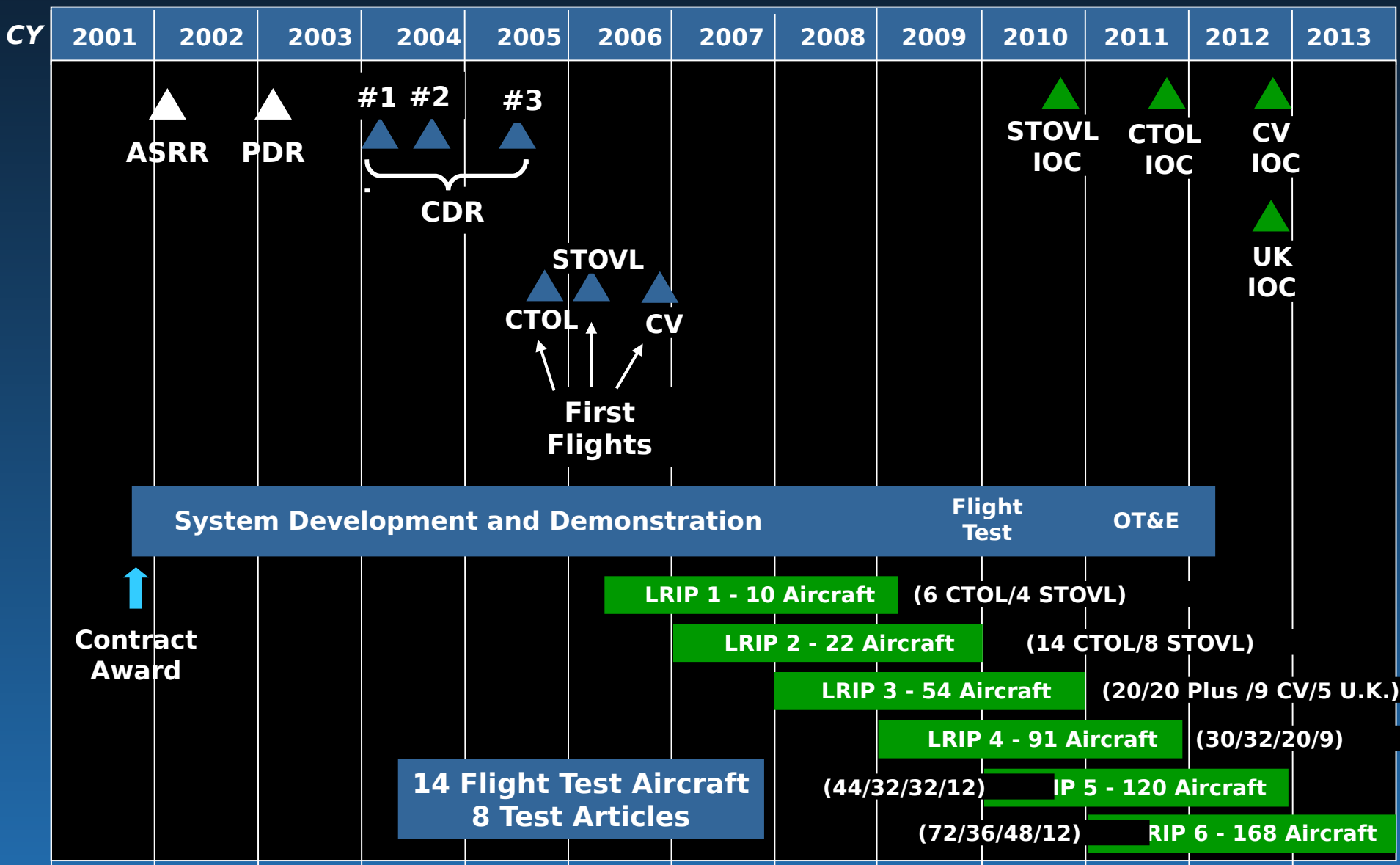
Integrated Support Infrastructure

Integrated Electronic Training of Pilots and Maintainers

Partnering with Government and Industry for Best Value

A Global Revolution In Fighter Sustainment

JSF Development Schedule



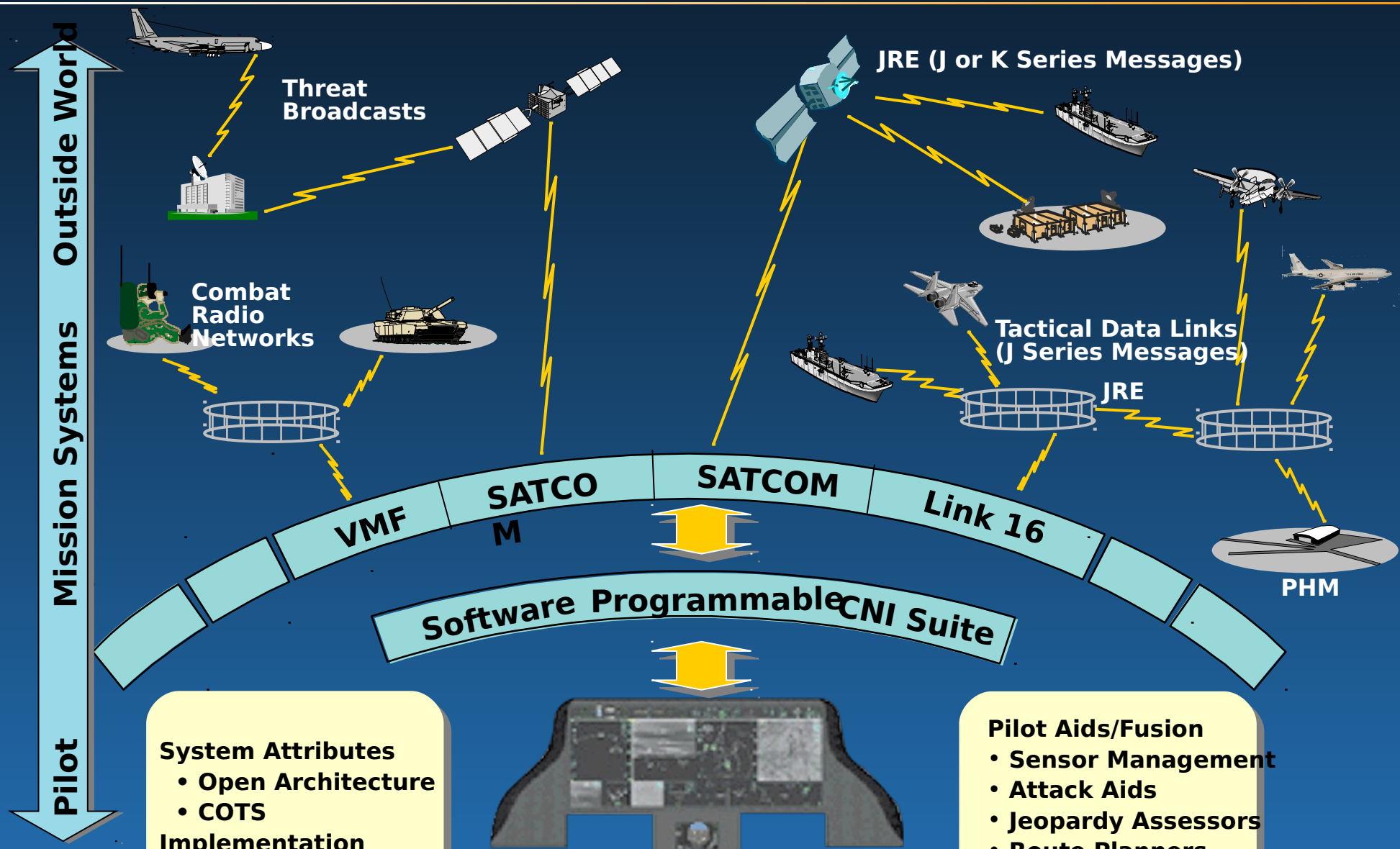
JSF Interoperability Transformation

- **A cornerstone for improved US/UK/coalition interoperability and network centric operations**
- **Enables New Approaches To Strike Operations**

Enabled By

- **Common and interoperable avionics systems**
  - ≈3000 aircraft built to exact same IO standards
  - *≈6000 including International Partners*
- **Unsurpassed strike fighter communications capability (IFDL, Link-16, VMF, SATCOM)**

Evolvable Airborne Architecture



Emerging External Interoperability Issues

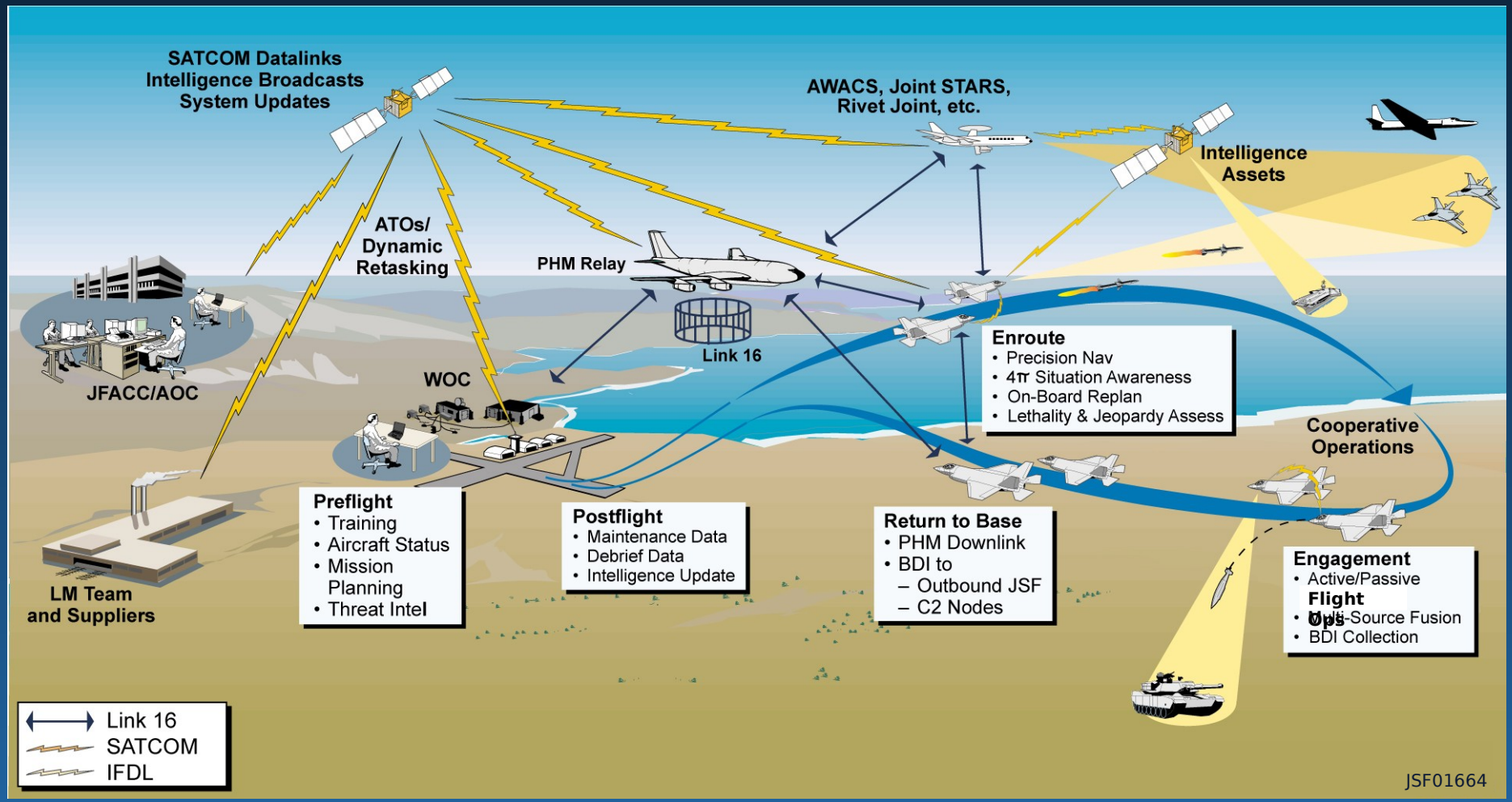
- **JSF Interoperability promise not fully realized if external OPFACs not upgraded to 2010 standards**
  - ***Requires cross DoD/MoD effort to achieve best interoperability outcome at JSF IOC and beyond***
  - ***JSF working to further identify OPFAC interoperability disconnects***

- **Link-16 capacity may be inadequate to support large number of JSF's in the post 2010 operational environment**
  - ***Initial MITRE Corp assessment highlighted potential shortfall***

Emerging External Interoperability Issues (cont)

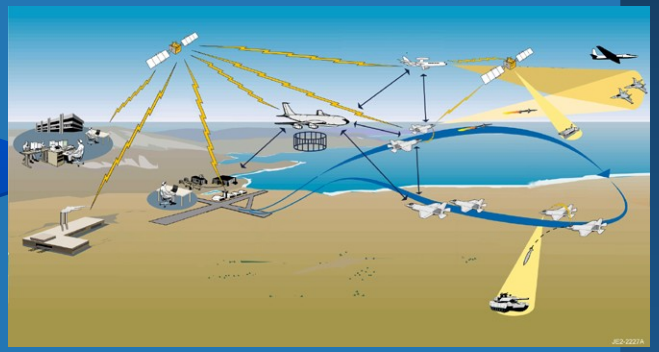
- **Emerging standards may not be available in time to meet JSF design “cut offs”. Examples are:**
  - ***Some Joint Tactical Radio System Waveforms***
  - ***Threat Broadcast Systems (IBS vs. TDDS/TIBS)***
  - ***Unambiguous/Timely Variable Message Format Standard***

JSF - A Key Node in the System of Systems



JSF - Designed For Interoperability

Toward Greater Combat Effectiveness



Improved Flight Characteristics

Improved Planning, Tasking, & ISR

Increased Reliability of On-Board Systems

All Wx, Day/Night

Counter Threat Systems

Information Integration

Improved Logistics Info System

Improved R&M/PHM

JIT Transport

Mechanized/Stovepiped

Manual Operations